

Recombinant SARS-CoV-2 Spike Protein RBD (His tag)

Cat. No. bs-41407P

Description

Protein Sequence	The recombinant NCP-CoV (2019-nCoV) Spike Protein RBD with His tag (234aa).
Source	Escherichia coil Expression System
Accession	
Mol wt	51.5kD
Endotoxin	Not tested.
Purity	≥90% as determined by SDS-PAGE
Application	Recommended for sandwich immunoassays in ELISA and CLIA. Each laboratory should determine an optimum working titer for use in its particular application.
Activity assay	Not tested.

Formulation and Storage

Format	Liquid
Concentration	≥0.5 mg/ml
Buffer	sterile PBS, pH7.4
Storage	Store at -20 ° C for one year. Avoid repeated freeze/thaw cycles.

Background

The spike (S) glycoprotein of coronaviruses contains protrusions that will only bind to certain receptors on the host cell. The spike is essential for both host specificity and viral infectivity. The spike (S) glycoprotein of coronaviruses is known to be essential in the binding of the virus to the host cell at the advent of the infection process. It's been reported that 2019-nCoV can infect the human respiratory epithelial cells through interaction with the human ACE2 receptor. The spike protein is a large type I transmembrane protein containing two subunits, S1 and S2. S1 mainly contains a receptor binding domain (RBD), which is responsible for recognizing the cell surface receptor. S2 contains basic elements needed for the membrane fusion. The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity. The main functions for the Spike protein are summarized as: Mediate receptor binding and membrane fusion; Defines the range of the hosts and specificity of the virus; Main component to bind with the neutralizing antibody; Key target for vaccine design; Can be transmitted between different hosts through gene recombination or mutation of the receptor binding domain (RBD), leading to a higher mortality rate.